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NOMENCLATURAL NOTES FOR THE NORTH AMERICAN FLORA. VII

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ABSTRACT

The authorship of the following names is discussed: *Horkelia fusca* Lindl. var. *parviflora* (Nutt. *ex* Torr. & Gray) Wawra, *Lotus purshianus* Clements & Clements, *Madia exigua* (Smith) A. Gray, *Sagittaria latifolia* Willd. var. *obtusa* (Engelm.) Wiegand, *Sagittaria longiloba* Engelm. *ex* J.G. Sm., and *Thunbergia grandiflora* Roxb. The parenthetical scientific names for poison oak (*Toxicodendron pubescens* P. Mill.), for Spanish clover (*Lotus unifoliolatus* [Hook.] Benth.), and for staghorn sumac (*Rhus hirta* [L.] Sudworth) are viewed to be correct. Three new combinations are proposed: **Chamaecrista nictitans** (L.) Moench var. **patellaria** (DC. *ex* Colladon) Kartesz & Gandhi; **Lotus unifoliolatus** (Hook.) Benth. var. **helleri** (Britt.) Kartesz & Gandhi; and **Ruellia caroliniensis** (Walt.) Steud. var. **cinerascens** (Fern.) Kartesz & Gandhi.

KEY WORDS: Floristics, nomenclature, Acanthaceae, Alismataceae, Anacardiaceae, Asteraceae, Fabaceae, Rosaceae, Sparganiaceae, *Chamaecrista, Horkelia, Lotus, Madia, Rhus, Ruellia, Sagittaria, Thunbergia*, and *Toxicodendron.*

INTRODUCTION

Continuing with the "NOMENCLATURAL NOTES FOR THE NORTH AMERICAN FLORA" (Kartesz & Gandhi 1989, 1990a, 1990b, 1990c, 1991a, 1991b), a seventh note in the series is presented here towards advancing our understanding of North American plant names.

ACANTHACEAE

Ruellia caroliniensis var. *cinerascens*

Under the binomial *Ruellia ciliosa* Pursh, Fernald described var. *cinerascens*. Since we treat *R. ciliosa* as a synonym of *R. caroliniensis* (Walt.) Steud., but still recognize Fernald's variety, the following new combination is proposed.

Ruellia caroliniensis (Walt.) Steud. var. **cinerascens** (Fern.) Kartesz & Gandhi, *comb. nov.* BASIONYM: *Ruellia ciliosa* Pursh var. *cinerascens* Fern., Rhodora 47:48. 1945. TYPE: U.S.A. Florida: Walton Co., Crestview, 22 Jul 1899, *Curtis 6489* (US).

Thunbergia grandiflora

Thunbergia grandiflora, a native of India, has become naturalized in Florida (pers. comm. from Dr. R.C. Wunderlin). The authorship of *T. grandiflora* has been attributed to "Roxb." (Jackson 1895; Wasshausen *in* Nicolson 1991), or to "(Roxb. *ex* Rottl.) Roxb." (Mathew, *Fl. Carnatic*, Tamil Nadu, vol. 3. 1983, *fide* Nicolson (US), pers. comm.; Barker 1986), or to "(Roxb. *ex* Rottl.) Lodd." (Howard 1989). Mathew, Barker, and Howard believed that this species was based on *Flemingia grandiflora* Roxb. *ex* Rottl., the type species for the genus *Flemingia* Roxb. *ex* Rottl. According to the ICBN (Greuter *et al.* 1988:219), the legume genus name *Flemingia* Roxb. *ex* Ait. f. (*Hort. Kew.*, ed. 2, 4:349. 1812) has been conserved over the homonym *Flemingia* Roxb. *ex* Rottler (Ges. Naturf. Freunde Berlin Neue Schriften 4:202. 1803). Furthermore, the ICBN indicated that *F. grandiflora* is an illegitimate name. In the protologue of *F. grandiflora*, we found the name *T. fragrans* Roxb., cited "as a synonym" in a footnote, which infers that *F. grandiflora* was a renaming of *T. fragrans*; i.e., the name *F. grandiflora* is superfluous and illegitimate. However, Dr. Nicolson informed us that footnotes in Rottler's article were not by Rottler, but rather by Willdenow (editor of Rottler's article). Hence, Nicolson concluded that the name *F. grandiflora* is legitimate and that ICBN erred in its treatment of Rottler's binomial. With this established, we discuss the authorship of the binomial *T. grandiflora*.

Roxburgh's 1814 work (*Hort. Beng.*), in which the binomial *Thunbergia grandiflora* was proposed, does not contain valid descriptions. For *T. grandiflora*, Roxburgh did not refer to Rottler's published description of *F. grandiflora*; hence, the binomial *T. grandiflora* was invalid. Loddiges (Bot. Cab., vol. 4(3): t. 324. Jan 1820) independently used the name *T. grandiflora* and provided an illustration and generalized remarks. Except for his comment that *T. grandiflora* was odorless, Loddiges' protologue did not provide an illustration with analysis and did not meet the requirements of ICBN Art. 44.1. He neither referred to Roxburgh nor cited any other reference. Since Loddiges stated that the plant was native to India, it is possible that he was aware of Roxburgh's

1814 usage of the name, but this speculation can not be verified. Subsequently, Roxburgh, again without referencing a botanical work, provided a description (in Ker-Gawler, Bot. Reg. 6: t. 495. Nov 1820) and thus validated the name.

Although Wasshausen (*in* Nicolson 1991:18) attributed the name *T. grandiflora* to Roxburgh, his treatment was followed by Nicolson's (editor and chief author of the publication) remarks that the nomenclature of this binomial remains unsettled. Until or unless additional nomenclatural evidence can be provided, we are compelled to accept Roxburgh alone as the author of the binomial dating from Nov 1820.

Thunbergia grandiflora Roxb. [*Hort. Beng.* 45. 1814, *nom. nud.*] in Ker-Gawler, Bot. Reg. 6: t. 495. Nov 1820. TYPE: Bot. Reg. 6: t. 495.

Flemingia grandiflora Roxb. *ex* Rottl., Ges. Naturf. Freunde Berlin Neue Schriften 4:202. 1803. TYPE: INDIA. Tamil Nadu, Madras, Marmelon(g), 28 Nov 1799, *Berry s.n.* (not traced; *fide* Nicolson).

ALISMATACEAE

Sagittaria latifolia var. *obtusa*

For his new varietal combination *Sagittaria latifolia* Willd. var. *obtusa*, Wiegand gave a direct and full reference to *S. obtusa* Muhl. *ex* Willd. and also cited a reference to *S. variabilis* Engelm. var. *obtusa* Engelm. *in* A. Gray (1856) as a synonym. Engelmann, who provided the treatment for the suborder Alismeae (including *Alisma, Echinodorus,* and *Sagittaria*) in the second edition of Gray's *Manual* (*fide* Gray's preface; p. xii), also based his variety on *S. obtusa.*

Unfortunately, *Sagittaria obtusa* Muhl. *ex* Willd. is a later homonym of *S. obtusa* Thunb. Although the name *S. obtusa* Thunb. is superfluous, and thus illegitimate (Thunberg cited *S. obtusifolia* L. as a synonym), *S. obtusa* Muhl. *ex* Willd. must still be rejected as a later homonym (ICBN Art. 64.1). Therefore, "Muhl. *ex* Willd." must not be cited as a parenthetical author for either *S. latifolia* var. *obtusa* or for *S. variabilis* var. *obtusa.* Furthermore, Engelmann's new combination *S. variabilis* var. *obtusa* must be treated as a *nomen novum*, with its priority from 1856 (ICBN Art. 72.2, Note 1), and Engelmann must be placed as the parenthetical author for the name *S. latifolia* var. *obtusa.*

Sagittaria latifolia Willd. var. *obtusa* (Engelm.) Wiegand, Rhodora 27:186. 1925. BASIONYM: *Sagittaria variabilis* Engelm. var. *obtusa* Engelm. *in* A. Gray, *Man. Bot.*, ed. 2. 439. 1856. *Sagittaria obtusa* Muhl. *ex* Willd., *Sp. Pl.* 4:409. 1805, *non* Thunb., 1784. TYPE: U.S.A. *Muhlenberg s.n.* (PH; fiche !).

Sagittaria longiloba

The name *Sagittaria longiloba* has been generally attributed to Engelm. *ex* Torrey (Smith 1895; Bogin 1955; Soil Conservation Service 1982) or to Engelmann (Kaul 1986). Torrey (1859:212), in a footnote, indicated that he had a *Sagittaria* specimen (sent by Bigelow) and considered it to be the same as "*S. longiloba* Engelm." According to Torrey, Engelmann had provisionally proposed (in manuscript) the name *S. longiloba* for a west Texas *Sagittaria* and regarded *S. longiloba* to be closely related to *S. simplex* Torr. Although Torrey briefly described *S. longiloba* ("The leaves, however, are sagittate, with very long, narrow, and widely diverging lobes, a state in which we have never seen *S. simplex*"), he remarked that these characters were insufficient for separating it from *S. simplex*. Since Torrey did not accept the name *S. longiloba*, he did not validly publish it, and the name must not be attributed to him (ICBN Art. 34.1a). Subsequently, Smith (1895) accepted the name *S. longiloba*, attributed it to Engelmann *ex* Torrey, and provided an adequate description for it. He thereby validated the name, with its priority beginning from 1895. Although Bogin (1955) made a similar analysis, he failed to correct the authorship. The proper authorship should be as follows.

Sagittaria longiloba Engelm. *ex* J.G. Sm., Annual Rep. Missouri Bot. Gard. 6:42. 1895.

ANACARDIACEAE

Rhus hirta

Although Britton (Bull. Torrey Bot. Club 18:269. 1891) indicated that *Datisca hirta* L. (published in 1753) was the earliest name for the staghorn sumac, he believed that transfer of *D. hirta* to the genus *Rhus* would create a later homonym of Harvey's *R. hirta*. We quote from Britton's article: "Although *hirta* is thus the oldest specific name associated with the plant, we are, I think, debarred from using it by the publication of *Rhus hirta* Harv., as a synonym by Engler (*in* C. DC., *Monogr. Phan.* 4:425. 1883), where this is referred to *R. tridentata*, Sond." Consequently, he accepted the name *R. typhina* L. (published in 1756), for the staghorn sumac. Britton's nomenclatural understanding of the sumac in question was probably appropriate during his time, but inappropriate under the present Code (Greuter *et al.* 1988). Harvey's manuscript's name *R. hirta*, which first appeared in Engler's treatment (as a synonym of *R. tridentata*, an African sumac), was indeed effectively published, but never validly published. Hence, Harvey's manuscript name has no nomenclatural standing (ICBN Art. 34.1). Therefore, contrary to Britton's

belief, the transfer of *D. hirta* to the genus *Rhus* would not have created a later homonym of *R. hirta* Harvey *ex* Engler, *pro syn.*

Sudworth (Bull. Torrey Bot. Club 19:80-81. 1892) argued against Britton's assertion and concluded that *Datisca hirta* could be transferred to the genus *Rhus*. Accordingly, he made the new combination: *Rhus hirta* (L.) Sudworth. In a rejoinder to Sudworth's note [published on the same page that the new combination (*R. hirta*) was published], Britton rejected Sudworth's new combination, but subsequently (in Britton & Brown 1913) accepted the new combination. Sudworth (1927:180) used the name *R. hirta* and remarked about the usage of the binomial *R. typhina* by others. Consistent with Sudworth's remark, many subsequent workers, such as Barkley (1937), Gleason (1952), Radford *et al.* (1968), Little (1979), McGregor (1986), Voss (1985), and Wofford (1989) accepted the name *R. typhina*. In addition to the name *R. hirta* (L.) Sudworth, Barkley (1937:326) also mentioned *R. hirta* "L. *ex* Small" as a synonym of *R. typhina*. On verification, we found that Small (1903) had indeed used the name *R. hirta* and attributed it to Linnaeus. We believe that Small certainly should have been aware of Britton's and Sudworth's notes on the sumac name under consideration and thereafter, should have chosen to follow Sudworth. However, he erred on the authorship in attributing the name to Linnaeus. Likewise, Barkley also erred by attributing the name *R. hirta* to "L. *ex* Small."

In order to legitimately use the name *Rhus typhina*, either it must be conserved over *D. hirta*, or the latter name must be rejected by the Nomenclatural Committee of the ICBN. Dr. Jim Reveal (MARY) has been pursuing the retention of the name *R. typhina*. Until or unless the committee decides in favor of Reveal's proposal (a decision we would not endorse), we accept the name *R. hirta* for the North American flora, and provide the following nomenclatural details.

Rhus hirta (L.) Sudworth, Bull. Torrey Bot. Club 19:81. 1892; Small, *Fl. S.E. U.S.* 1334. 1903. BASIONYM: *Datisca hirta* L., *Sp. Pl.* 1037. 1753.

Rhus typhina L., *Cent. Pl.* 2:14. 1756.

Toxicodendron pubescens

Historically, the following names have been associated with the poison-oak of eastern North America: *Rhus toxicarium* Salisb., *R. toxicodendron* L., *Toxicodendron pubescens* P. Mill., *T. quercifolium* (Michx.) E. Greene, *T. toxicarium* (Salisb.) Gillis, *T. toxicodendron* (L.) Britt., and *T. vulgare* P. Mill. After reviewing the nomenclature for this species, it is apparent that the earliest name for this complex is *R. toxicodendron* L. Unfortunately, this Linnaean epithet can not be transferred to *Toxicodendron*, since it would create a tautonym [*T. toxicodendron* (L.) Britt., an illegitimate name (ICBN Art. 23.4)].

Gillis (1971) presented an informative analysis on the nomenclature of the poison-oak. With reference to the name *Toxicodendron vulgare*, Gillis stated (p. 413): "*Toxicodendron vulgare* is too inaccurately described to be Eastern poison-oak, even though indirectly linked with that species in the literature ..., this binomial must be rejected under (ICBN) Art. 69 of the code." Furthermore, he also rejected the name *T. pubescens* remarking: "His (Miller's) description fits *T. toxicarium* which has pubescent leaves and fruits, but not to the exclusion of all other taxa." (Both rejections are not permissible under the current code.) Consequently, Gillis chose the next earliest name (*Rhus toxicarium* Salisb.), transferred it to *Toxicodendron*, and made the combination: *T. toxicarium* (Salisb.) Gillis. Unfortunately, the basionym *R. toxicarium* is superfluous, since Salisbury cited *R. toxicodendron* in synonymy.

With reference to Gillis' new combination, we analyzed his treatment and concluded the following: Gillis did not exclude the Linnaean type of *Rhus toxicodendron* L. Gillis presumed that *R. toxicarium* had priority and was unaware that it was an illegitimate name and that ICBN Art. 45, Note 2 (pertaining to priority of names) and Art. 49 (pertaining to parenthetical authorship) applied to his new combination (Lanjouw *et al.* 1966). We apply ICBN Art. 72.2, Note 1, and recognize Gillis' "new combination" as a *nomen novum* (i.e., based on the same type as *R. toxicodendron* L. and *R. toxicarium* Salisb., *nomen superfluum*). In other words, *Toxicodendron toxicarium* Gillis is a legitimate name, with priority from 1971.

Barkley (1937) recognized the name *Toxicodendron quercifolium* for the plant in question. (The name *T. quercifolium* was based on *Rhus toxicodendron* var. *quercifolium* Michx.). He rejected the name *T. pubescens* and placed it (in parts) as synonyms of both *T. quercifolium* and *T. radicans* (L.) Kuntze. Barkley's rejection of the name *T. pubescens* was probably appropriate for the Code of his time, but inappropriate under today's Code. For the legitimate use of *T. pubescens*, Reveal (Taxon 40:334. 1991) designated a neotype. In his article, Reveal was correct in his assessment that *T. toxicarium* Gillis is a "new name" but erred in considering it to be "*nom. illeg. superfl.*"

Toxicodendron pubescens P. Mill., *Gard. Dict.*, ed. 8, Art. *Toxicodendron*, no. 2. 1768. NEOTYPE (*vide* Reveal, Taxon 40:334. 1991): Uvedale collection, Sloane herbarium, *H.S. 315:86* (BM-SL).

Rhus toxicodendron L., *Sp. Pl.* 1:266. 1753. *Rhus toxicarium* Salisb., *Prodr.* 170. 1796. *Toxicodendron toxicodendron* (L.) Britt. *in* Britt. & Brown, *Ill. Fl. N. U.S.*, ed. 2. 2:484. 1913, *nom. illegit. Toxicodendron toxicarium* Gillis, Rhodora 73:402. 1971.

Toxicodendron quercifolium (Michx.) E. Greene, Leafl. Bot. Observ. Crit. 1:127. 1905.

ASTERACEAE
Madia exigua

In the second note of his article, Gray (Proc. Amer. Acad. Arts 8:372-412. 1872) included a total of 701 numbers, of which the nos. 284-288 pertained to the genus *Madia*. For no. 288 (p. 391), Gray stated: "*Madia* (*Harpecarpus*) *filipes. Harpecarpus madrioides* Nutt. This and the related *M. exigua* (*Sclerocarpus exiguus* Smith) form a marked section of the genus expanded."

Cronquist (1955), Kartesz & Kartesz (1980), and Dorn (1988) accepted Gray as the combining author of the name *Madia exigua*, but the Soil Conservation Service (1982) recognized Greene (Erythea 1:90. 1893) as the combining author. From Gray's treatment of the name, it is clear that he validly and effectively made the new combination. Any rejection of Gray's usage of the name, as an incidental mention, and thus invalid (Voss *et al.* 1983; ICBN Art. 34.1c), is now incorrect, since the preceding Article was dropped in the Berlin Congress (Greuter *et al.* 1988). Hence, we concur with Cronquist (1955), Kartesz & Kartesz (1980), and Dorn (1988) that Gray is the combining author of the combination.

Madia exigua (Smith) A. Gray, Proc. Amer. Acad. Arts 8:391. 1872. BASIONYM: *Sclerocarpus exiguus* Smith *in* Rees, *Cycl.* 31. 1815.

FABACEAE
Chamaecrista nictitans

Irwin & Barneby (1982) proposed (among several others) a new combination: *Chamaecrista nictitans* (L.) Moench var. *ramosa* (Vogel) Irwin & Barneby, which was based on *Cassia patellaria* DC. *ex* Colladon var. *ramosa* Vogel. The authors also cited *Cassia patellaria* as a synonym.

When Vogel proposed his var. *ramosa*, he automatically created the autonym: *Cassia patellaria* DC. *ex* Colladon var. *patellaria*. It was most likely that Irwin & Barneby followed the Leningrad Congress, which stated that autonyms were not to be taken into consideration for purposes of priority (Stafleu 1978; ICBN Art. 26.2), whereas in the Sydney Congress that principle was reversed, with autonyms having priority over the names that established them (Voss *et al.* 1983; ICBN Art. 57.3). A new combination is therefore needed and is proposed below:

Chamaecrista nictitans (L.) Moench var. **patellaria** (DC. *ex* Colladon) Kartesz & Gandhi, *comb. nov.* BASIONYM: *Cassia patellaria* DC. *ex* Colladon var. *patellaria*, automatically established by *Cassia patellaria* var. *ramosa* Vogel, 1837. *Cassia patellaria* var. *ramosa* Vogel, *Syn. Gen. Cass.* 66. 1837. *Chamaecrista nictitans* (L.) Moench var. *ramosa* (Vogel) Irwin & Barneby, Mem. New York Bot. Garden 35:817. 1982.

Lotus unifoliolatus

Lotus purshianus has historically been the scientific name used for the Spanish clover (Hitchcock *in* Hitchcock & Cronquist 1961; Isely 1981; Barneby 1989); however, Dorn (1988:171) used the name *L. unifoliolatus* Benth. Hitchcock as well as Isely attributed the name *L. purshianus* to "(Benth.) Clements & Clements" and cited the names *L. sericeus* Pursh (a later homonym), *Trigonella americana* Nutt., *Hosackia purshiana* Benth., *H. unifoliolata* Benth., and *L. americanus* (Nutt.) Bisch. (a later homonym) in synonymy. Barneby attributed the name *L. purshianus* to "(Benth. *ex* Lindl.) F. & E. Clements *ex* Ottley" but did not include *H. unifoliolata* in synonymy. Under the name *L. unifoliolatus*, Dorn (1988:303) cited *L. purshianus* as a synonym and mentioned the following: "*Lotus purshianus* - *Hosackia purshiana*, on which name was based, is illegitimate. The epithet *americanus* should have been taken up by Bentham." Since Dorn's remarks were brief and since the most recent work of Barneby differed from that of Dorn, we decided to investigate the name *L. purshianus*.

The earliest binomial in this complex appears to be *Lotus sericeus* Pursh, and hitherto, this binomial has been considered to be a later homonym of *L. sericeus* DC. In our study, we found that prior to de Candolle's usage of the name *L. sericeus*, Moench used the binomial *L. sericeus*. Although Moench's binomial was superfluous (he cited *L. creticus* L. as a synonym), and thus illegitimate, it still rendered both de Candolle's and Pursh's binomials to be illegitimate (ICBN Art. 64.1, Note 1).

Regarding the authorship of *Hosackia purshiana*, the name was validly published in Lindley's (Bot. Reg. 15: t. 1257. 1829) work. Possibly for this reason, Barneby (1989) considered Lindley to be the validating author. However, Lindley clearly indicated that Bentham contributed the description of this species; hence, Bentham is the author of the binomial *H. purshiana*. The next question is whether to consider the name *L. purshianus* as a new combination (as did Hitchcock, Isely, and Barneby), as a *nomen novum*, or as a *species novum*.

Clements & Clements (1914:183) used the name *Lotus purshianus* and provided key characters, but did not provide a citation. In their preface, they referenced Britton & Brown (among others), but their key characters were not copied from Britton & Brown (1897, 1913).

Neither Hitchcock (*in* Hitchcock & Cronquist 1961) nor Barneby (1989) discussed the nomenclature of *Lotus purshianus*, but Isely (1981:243-244) did provide a discussion. Isely contended that Clements & Clements' preface reference to Britton & Brown (who included *Hosackia purshiana* as a synonym of *L. americanus*) should be considered as an indirect reference to Bentham's *H. purshiana*. With this assertion, Isely concluded that Clements & Clements had validly made the combination: *L. purshianus* (Benth.) Clements & Clements.

Our analysis, contrary to Isely's assertion, follows.

Nuttall transferred *Lotus sericeus* to the genus *Trigonella* L. and provided a new name: *T. americana*. Bentham (*in* Lindley 1829) proposed the name *Hosackia purshiana* for *L. sericeus* and cited *T. americana* as a synonym. Later, Bentham (Trans. Linn. Soc. London. 17:368. 1837) rejected the name *H. purshiana*, accepted the name *L. sericeus*, and cited *T. americana* and *H. purshiana* as synonyms. Since both *H. purshiana* and *T. americana* were based on the type of *L. sericeus*, Bentham should have accepted the epithet *americana* in lieu of the epithet *purshiana*. However, he did not. This rendered the name *H. purshiana* to be superfluous, and thus illegitimate (ICBN Art. 63.1). Moreover, the name *H. purshiana* must not be considered for purpose of priority (ICBN Art. 45.3). Any resultant new combination, based on *H. purshiana*, must be considered as a *nomen novum*, without a parenthetical author (ICBN Art. 72.2, Note 1). Hence, even if Hitchcock, Isely, and Barneby were correct in assuming that the name *L. purshianus* was based on *H. purshiana*, they erred in treating *L. purshianus* as a new combination. Ottley's (1944) usage of the name *L. purshianus* suggested that he considered it to be a *nomen novum* for *L. americanus*. However, we believe that Clements & Clements' usage of the name *L. purshianus* should be considered a *species novum*.

Clements & Clements' preface reference to Britton & Brown (1897) was a generalized statement and was not specific enough to provide even an indirect reference to either Nuttall or Bentham, *i.e.*, the requirements of ICBN Art. 32.4 were never met for an indirect reference to make a *nomen novum* or *combinatio novum*. Regarding the usage of the epithet *purshianus*, perhaps Clements & Clements were aware of Bentham's treatment; however, due to a lack of citation, this speculation can not be verified. The use of the epithet *purshiana* by Bentham as well as by Clements & Clements should be considered coincidental. Therefore, we conclude that Clements & Clements inadvertently, but validly and effectively proposed a new species, with priority from 1914.

With the nomenclature of the name *Lotus purshianus* resolved, additional discussion on Barneby's nomenclature is not made here. We conclude that *L. unifoliolatus* is the correct name for Spanish clover, as indicated by Dorn (1988).

Lotus unifoliolatus (Hook.) Benth., Trans. Linn. Soc. 17:368. 1837. BASIONYM: *Hosackia unifoliolata* Hook., *Fl. Bor. Amer.* 1:135. 1833.

Lotus sericeus Pursh, *Fl. Amer. Sept.* 2:489. 1814, *non* Moench, 1802, *nec* DC., 1813. *Trigonella americana* Nutt., *Gen. Pl.* 2:120. 1818. *Lotus americanus* (Nutt.) Bisch., Linnaea 14(App.):132. 1840, *non* Vell., 1825. *Hosackia purshiana* Benth. *in* Lindl., Bot. Reg. 15: t. 1257. 1829, *nom. illegit.*

Lotus purshianus Clements & Clements, *Rocky Mt. Fls.* 183. 1914.

The above treatment necessitates the transfer of *L. purshianus* var. *helleri* (Britt.) Isely to *L. unifoliolatus*, for which the following new combination is proposed.

Lotus unifoliolatus (Hook.) Benth. var. **helleri** (Britt.) Kartesz & Gandhi, *comb. nov.* BASIONYM: *Lotus helleri* Britt., Bull. Torrey Bot. Club 17:312. 1890. *Lotus purshianus* Clements & Clements var. *helleri* (Britt.) Isely, Brittonia 30:468. 1928. LECTOTYPE (*vide* Isely, *l.c.*): U.S.A. North Carolina: Mecklenberg Co., 1835, *Curtis s.n.* (NY).

ROSACEAE

Horkelia fusca var. *parviflora*

Dorn (1988) attributed the authorship of *Horkelia fusca* Lindl. var. *parviflora* to (Nutt. *ex* Hook. & Arn.) Peck, whereas the Soil Conservation Service (1982, vol. 2) attributed it to (Nutt. *ex* Torr. & Gray) Wawra. Hence, we decided to research the nomenclature.

Hooker & Arnott (1839) numbered each taxon that they accepted. In the protologue of *Horkelia cuneata* Lindl. (p. 338, no. 2), they mentioned the Nuttalean manuscript name *H. parviflora* and provided a brief description, but did not include this name in the index. Since the name *H. parviflora* was not separately numbered and not indexed, its inclusion in the protologue of *H. cuneata* could be interpreted as either a provisional name (ICBN Art. 34.1b), a described name in synonymy (ICBN Art. 34.1c), or both, none of which can be considered to be legitimate.

Torrey & Gray (1840) independently described *Horkelia parviflora* (attributing the name to Nuttall), and thus validated the name; hence, the correct authorship of *H. parviflora* is: Nutt. *ex* Torr. & Gray. Wawra transferred *H. parviflora* to *H. fusca* at varietal status. Perhaps unaware of Wawra's earlier combination, Peck independently transferred *H. parviflora* to *H. fusca* at varietal status, and attributed the basionym to Hooker & Arnott. Since the type specimen for both Hooker & Arnott and for Torrey & Gray was a Nuttalean specimen, Peck's new combination must be considered as an isonym (Nicolson 1975).

Horkelia fusca Lindl. var. *parviflora* (Nutt. *ex* Torr. & Gray) Wawra, *Itin. Princ. S. Cobungi* 1:17. 1883; Peck, Madroño 6:134. 1941. BASIONYM: *Horkelia parviflora* Nutt. [*ex* Hook. & Arn., *Fl. Bor. Amer.* 338. 1839, *nom. invalid*] *ex* Torr. & Gray, *Fl. N. Amer.* 1:435. 1840.

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